

## Puzzle with Like Terms

Solve each of the inequalities below. Put your number solution in the box below each number line, and shade in the appropriate direction. Circle the letter above the arrow that you shaded towards. In the puzzle answer at the bottom of this page, fill in the circled letter into the boxes above your number solution.

$2(x - 2) \leq -6$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>W</span> <span>K</span> </div>	$5 - 2x \leq 15$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>F</span> <span>B</span> </div>	$2x - 6 - 4x < -8$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>S</span> <span>E</span> </div>
$\frac{x}{4} + 7 \geq 5$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>P</span> <span>I</span> </div>	$5x + 15 - 6x > 19$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>T</span> <span>R</span> </div>	$\frac{x}{3} - 2 < 2$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>M</span> <span>T</span> </div>
$\frac{x}{4} - 9 > 5$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>R</span> <span>A</span> </div>	$2(-4 + x) \geq 28$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>E</span> <span>H</span> </div>	$-7 + \frac{x}{2} \geq -4$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>T</span> <span>S</span> </div>
$10 - 3x + (-19) > 9$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>G</span> <span>N</span> </div>	$-10 - 7x + 9x \leq 8$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>O</span> <span>A</span> </div>	$3(x - 6) > -18$  <div style="display: flex; justify-content: space-between; align-items: center;"> <span>T</span> <span>Y</span> </div>

*Which weighs more? A pound of gold or a pound of feathers?*

-4	18	1	0		-5	9	-4	18		-1	1	-8	-6	18
								!!						
-4	18	1		6	56	12	1							

# Puzzle with Like Terms

Key

Solve each of the inequalities below. Put your number solution in the box below each number line, and shade in the appropriate direction. Circle the letter above the arrow that you shaded towards. In the puzzle answer at the bottom of this page, fill in the circled letter into the boxes above your number solution.

$2(x - 2) \leq -6$ $2x - 4 \leq -6$ $+4 \quad +4$ $\frac{2x}{2} \leq \frac{-2}{2}$ $x \leq -1$ <p>W K</p> <p>-1</p>	$5 - 2x \leq 15$ $-5 \quad -5$ $\frac{-2x}{-2} \leq \frac{10}{-2}$ $x \geq -5$ <p>F B</p> <p>-5</p>	$2x - 6 - 4x < -8$ $-6 - 2x < -8$ $+6 \quad +6$ $\frac{-2x}{-2} < \frac{-2}{-2}$ $x > 1$ <p>S E</p> <p>1</p>
$\frac{x}{4} + 7 \geq 5$ $-7 \quad -7$ $\frac{x}{4} \geq -2$ $\frac{4}{4} \cdot \frac{x}{4} \geq \frac{-8}{4}$ $x \geq -8$ <p>P I</p> <p>-8</p>	$5x + 15 - 6x > 19$ $15 - x > 19$ $-15 \quad -15$ $\frac{-x}{-1} > \frac{4}{-1}$ $x < -4$ <p>T R</p> <p>-4</p>	$\frac{x}{3} - 2 < 2$ $+2 \quad +2$ $\frac{x}{3} < 4$ $\frac{3}{3} \cdot \frac{x}{3} < \frac{12}{3}$ $x < 12$ <p>M T</p> <p>12</p>
$\frac{x}{4} - 9 > 5$ $+9 \quad +9$ $\frac{x}{4} > 14$ $\frac{4}{4} \cdot \frac{x}{4} > \frac{56}{4}$ $x > 56$ <p>R A</p> <p>56</p>	$2(-4 + x) \geq 28$ $-8 + 2x \geq 28$ $+8 \quad +8$ $2x \geq 36$ $\frac{2x}{2} \geq \frac{36}{2}$ $x \geq 18$ <p>E H</p> <p>18</p>	$-7 + \frac{x}{2} \geq -4$ $+7 \quad +7$ $\frac{x}{2} \geq 3$ $\frac{2}{2} \cdot \frac{x}{2} \geq \frac{6}{2}$ $x \geq 6$ <p>T S</p> <p>6</p>
$10 - 3x + (-19) > 9$ $-3x - 9 > 9$ $+9 \quad +9$ $\frac{-3x}{-3} > \frac{18}{-3}$ $x < -6$ <p>G N</p> <p>-6</p>	$-10 - 7x + 9x \leq 8$ $-10 + 2x \leq 8$ $+10 \quad +10$ $\frac{2x}{2} \leq \frac{18}{2}$ $x \leq 9$ <p>O A</p> <p>9</p>	$3(x - 6) > -18$ $3x - 18 > -18$ $+18 \quad +18$ $\frac{3x}{3} > \frac{0}{3}$ $x > 0$ <p>T Y</p> <p>0</p>

Which weighs more? A pound of gold or a pound of feathers?

T	H	E		B	O	T	H	W	E	I	G	H
-4	18	1	0	-5	9	-4	18	-1	1	-8	-6	18
T	H	E		S	A	M	E	!!				
-4	18	1		6	56	12	1					